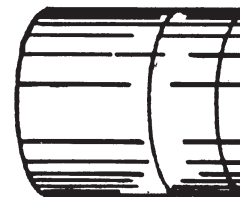


# The Connection



A WELL DRILLING INDUSTRY NEWSLETTER

MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Summer 2003

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Number 1



## BIMONTHLY REPORT

On January 15<sup>th</sup>, the Wellhead Protection Section (WHP) began sending contractors a bimonthly report listing each company's well and pump records that WHP received during November and December 2002. Reports were also sent out in mid-March and mid-May.

The report lists the reference number of the record, the type of record (well or pump), the first and last name of the well owner, plus the owner's city of residence and a status report column. Based on comments received, the status column will be replaced with the contractor permit number.

Please compare your records with those contained in the report. If you have turned in well or pump records during the two-month time period covered by the report, and these records are not included in your report, notify WHP at (573) 368-2165. By matching your records with our records, you will know which records WHP has in its system. This will help to avoid missing records and thereby decrease contractor expense. If you do not get a report, then WHP has not received any records under your permit number for the last two months. ☹

### INSIDE:

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## WELL INSTALLATION BOARD MEETING

The next scheduled meeting of the Well Installation Board will be August 22, 2003, at the Phelps County Courthouse in Rolla, Missouri. Open session will begin at 10:00 A.M.

The November meeting is set for November 7, 2003. If it is available, the meeting will be held at the Kansas City Discovery Center, 4750 Troost Ave. Open session will begin at 10:00 a.m. ☹

## WELL DRILLING ADVISORY HEMATITE AREA JEFFERSON COUNTY

The Department of Natural Resources (DNR) is issuing a well drilling advisory for the area immediately east of Hematite, Missouri (see figure below). This advisory is being issued to better protect public health and prevent unnecessary spread of contamination through inadequately cased wells.

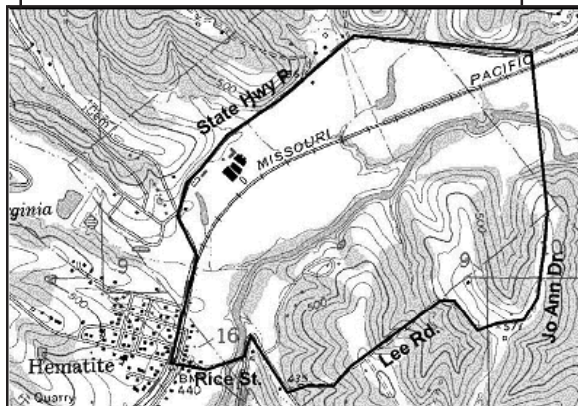
Trichloroethylene (TCE) and dichloroethylene (DCE) have

been detected in the groundwater to a known depth of 125 feet and possibly to a depth of 325 feet. State Highway P, Rice Street, Lee Road, Jo Ann Drive, and an imaginary line roughly half a mile west of the National Guard Armory (located near the Highway A and P intersection) encircle the possible contamination area (see figure below).

The groundwater advisory area is within portions of the south half of Section 9, a north portion of Section 16, and a west portion of Section 10, Township 40 North, Range 5 East. Because the full extent of the contamination has not yet been determined, segments of the groundwater advisory area may not be impacted with TCE and DCE. The groundwater advisory area was defined in order to advise well drillers of potential contamination.

**Well drilling is currently not recommended within this area** until the full extent of the TCE and DCE plume is determined. **Contact the DNR** to determine how to appropriately construct a well.

If you have specific questions, feel free to contact Evan Kifer at (573) 368-2170. ☹



## PLACEMENT OF DOMESTIC WELLS

In determining where to put a well, first ask where the owner wants it, but then and most importantly, consult the rules about placement of the well. We know you must try to please the landowner, but you must *also* comply with the Missouri Well Construction Rules.

*continued next page...*

### **Change in Procedure** *continued...*

A well must be located consistent with the general layout and surrounding area. Consideration of the lot size, land contours, the water table, soil deposits, and rock formation are important factors in deciding where to locate the well.

Remember that a well shall be located on a site at an elevation higher than any source of contamination, if possible. The top of the casing must extend at least 1 foot above the *finished* surface grade.

Wells shall be located so that the well and its surroundings can be kept in a sanitary condition and provide ready access for repairs, maintenance, and inspections.

The well shall be located so that proper drainage in the vicinity of the well will prevent the accumulation and ponding of surface water within ten feet of the well. If at all possible, the well should be located in an area that is not prone to flooding.

If a well is constructed in a floodplain, the top of the casing should terminate not less than two feet above the maximum known flood water elevation. If this is impractical, the well vent must be sealed and the well discontinued from operation when flooding is eminent.

A well shall be adequately sized, designed and developed for its intended use. It should be constructed so as to maintain existing natural protection against pollution of water-bearing formations and to exclude all known sources of contamination from the well and take into account sources of contamination from adjacent properties.

For quick reference, the following is a list of setback distances from water wells to potential sources of contamination. The list is not all-inclusive. You can refer to 10 CSR 23-3.010 for more detailed references or call (573) 368-2165 for assistance.

**A well shall be at least 300 feet from:**

- A storage area for commercial fertilizers or chemicals.
- A landfill
- A lagoon

An above or underground storage tank

Distribution lines for liquid petroleum, petroleum products or chemicals

Earthen, concrete or other manure storage structures or lagoons

Land application areas for domestic or animal waste

Animal composting facilities

**A well shall be at least 100 feet from:**

Cesspools

An unplugged abandoned well

A subsurface disposal field

A privy

A grave

A single family lagoon

A building or yard used for livestock or poultry

**A well shall be at least 50 feet from:**

A buried sewer

A septic tank or sewer holding tank

A pit or unfilled space below ground surface

A sump

An existing operating well

**A well shall be at least 10 feet from:**

The right of way of any federal, state, or county road.

While not required by regulation, it is recommended that a well be at least 25 feet from an electric transmission line which is in excess of 50 kilovolts, at least 15 feet from an overhead electric distribution line, and at least 3 feet from a building or any projection, except for a pumphouse. ♡

## **NEW WELL INSTALLATION BOARD MEMBER**

We would like to welcome Mr. Danny Flynn, of Troy, MO to the Well Installation Board. Mr. Flynn is president and owner of Flynn Drilling Company, which has been in business since 1954. He is a member of numerous organizations which include the National Groundwater Association, Missouri Rural Water Association,

Missouri Water Well Association, Missouri Water & Wastewater Conference, Missouri Farm Bureau Association, St. Louis Sod Producers Association, Tri County Builders Association, Lincoln County Industrial Development Authority Board, and the Troy Chamber of Commerce. Mr. Flynn is successor of Mr. Greg Evans whose term expired in February 2003.

Again we would like to congratulate Mr. Flynn on his selection to the Missouri Well Installation Board and look forward to working with him in the future. ♡

## **CHANGE IN PROCEDURE**

Due to the budget cuts and a shortage of staff, we are changing the procedure we use when requesting records that have not been submitted to Wellhead Protection.

Previously we have sent contractors one letter requesting the missing certification form and a second notice. If there was no response to the second notice a Notice of Violation would be issued.

Our new procedure will be to send one letter to the contractor requesting the missing certification.

*continued next page...*

## **EDITOR'S NOTE**

*If you have any suggestions, ideas, or comments concerning this newsletter, please let us know.*

**Wellhead Protection Section**

**P.O. Box 250**

**Rolla, MO 65402-0250**

**(573) 368-2165**

**FAX (573) 368-2317**

**The Connection** is published quarterly by the Department of Natural Resources Geological Survey and Resource Assessment Division

Stephen M. Mahfood  
Department of Natural Resources  
Director

Mimi R. Garstang  
Geological Survey and  
Resource Assessment Division  
Director and State Geologist

**Change in Procedure** continued...

tion form, and then make one telephone call (which includes leaving a message on a machine). If within 10 working days there is no response to the telephone call, a Notice of Violation will then be issued.

If you have any questions concerning these procedures, please feel free to call Bob Archer at (573) 368-2171, Sheri Fry at (573) 368-2115, or Peggy Wendt at (573) 368-2318. ♡

## MAPS! MAPS! MAPS!

The Division has a new series of maps to assist drillers working near the shore of several major Missouri lakes. Scott Kaden, a geologist in the division's Geological Survey Program, developed the maps. The maps will aid drillers in determining if their well site is located within Area 1B around the major lakes of Missouri.

In Area 1B, drillers must case wells at least 50 feet below the deepest point of the lake that is within ¼ mile of their well site, if the water is at least 20 feet deep. If there is not at least 20 feet of water within a ¼ mile radius of the well site, it is not considered to be within Area 1B. The 20-foot depth contour and the ¼ mile buffer are clearly delineated on the maps.

If the well site is within the ¼ mile buffer it is recommended that the driller obtain a casing depth letter from the Division (the well may be drilled without a letter as long as the driller sets the casing 50 feet below the deepest lake level). The maps are in book form (bound and laminated) and available at the Division for \$30.00 each. Shipping charges will be added to each order. The maps available are **Bull Shoals Lake, Lake Ozark, Norfolk Lake, Stockton/Pomme de Terre Lake, Table Rock Lake**, and **Truman Lake**.

**Area 1C Casing Requirement** maps are also available in lami-

nated book form for \$30.00 per book. ♡

## PREVIOUSLY ISSUED WELL ADVISORIES

The following well drilling advisory is in effect for the State of Missouri:

**Site Name:** New Haven (Franklin County). Also known as the Riverfront Superfund Site.

**Contaminants of concern:** Tetrachloroethene (PCE) and its degradation products

**Specific location and well construction requirements:**

To assure that new wells case out known contamination, all new wells drilled in the area should be constructed in accordance with the following standards:

### **Sec 36, Town 45, Range 3W:**

Consult the division for construction specifications.

Much of this area is currently served by public drinking water.

### **Sec 2, N ½ Sec 11, SW ¼ Sec 1 and NW ¼ Sec 12, Town 44, Range 3W:**

Water Wells:

Recommended Casing:

200 feet

Recommended Grouting:

Full-length

Recommended Borehole

Size: 10 inch

Heatpump Wells:

Recommended not to be constructed in area until plume is further delineated.

Construction using alternating plugs and fill has potential to spread contamination.

Contractors and homeowners could assume liability if contamination is spread.

**Additional Information:** <http://missouri.usgs.gov/epa/nh/welladvisory/advisory.htm>

**Contact:** Evan Kifer at 573-368-2170 or Candice McGhee; MDNR Superfund, (573) 751-1738



## WELLHEAD PROTECTION SECTION PHONE NUMBER LISTING (573)368-2165

### **BOB ARCHER**

Section Chief

(573) 368-2165 - Information on legislation and enforcement and monitoring well construction.

### **EVAN KIFER**

Unit Chief - Hydrogeologic Investigation Unit

(573) 368-2170 - Field investigation, variances, casing depths, shallow injection well (Class V) construction standards, and oil and gas well permitting.

### **SHERI FRY**

Unit Chief - Administrative Unit

(573) 368-2115 Technical assistance in the area of regulations, well certification, and enforcement procedures.

### **SHARON BEISTEL**

(573)368-2168 - Water well construction information and certification, heatpump registration, abandonment registration, location of wells, and map reading information.

**VACANT**—Sheri Fry will be taking these calls until position is filled.

(573) 368-2115 - Permitting and testing information. Provides technical assistance in the area of regulations, well certification and enforcement procedures. Oil & Gas Council Secretary.

### **VACANT**

(573) 368-2375 - General information, requests for forms, county maps, and publications.

### **JEANNIE HOYLE**

(573) 368-2450 - Well Installation Board Secretary and information regarding Notices of Violation (NOVs).

### **PAUL MEYER**

(573) 368-2159 - Water well reconstruction, well plugging, and field investigation.

### **KATHRYN (KAY) HARRIS**

(573) 368-2165 - Section Secretary—General information, requests for forms, county maps, publications, invoicing and fee questions.

### **MATT PARKER**

(573) 368-2195 - Oil and gas well permitting, oil and gas production statistics, shallow injection well (Class V) construction standards.

### **JOE SCHLUETER**

(573) 368-2316 - Well plugging and field investigation.

*continued next page...*



**Phone Listing** *continued...*

**CATHY SMITH**

(573) 368-2167 - Casing depth information, variances, field investigation, and certification of monitoring wells.

**PEGGY WENDT**

(573) 368-2318 - Correspondence Clerk, information regarding pump information records submitted and drought assistance well certification letters.

**VACANT**

(573) 368-2196 - Confined animal feeding operation wells, casing depth information, variances, field investigation and certification of monitoring wells. ♀

**WELCOME**

Aqua Wells\Brian Brunk  
Associated Environmental\ Bradley Johnson, Jeremy Warner  
ATC Associates\Leah Schulte  
Bingham Resources\Darin Wicks  
Brotcke Well & Pump\Kevin Cox, John Layton  
Civil & Environmental Consultants\ Paul Stevens  
Eddie Barnes Well Drilling\Lathan Cobb  
Environmental Strategies Corp\ Laura Murray

Geocore Services\David Summers  
Heartland Drilling & Remediation\ Marc Simmering  
J & S Pump\Stephen Lindquist  
Layne-Western\Gary Mills  
Matrix Environmental\Andrew Kirsch  
MO Department of Natural Resources\ Kathryn Harris, Jeannie Hoyle  
MRK Environmental\Steven Hicks  
Pipe & Power\David Erwin  
Reddish Drilling\Steven Reddish  
Shaw Environmental\Kenneth Toney ♀

**FAREWELL**

Al Miller Drilling Service\Al Miller  
A P Green & Associates\James Hays  
Armadillo Inc\Marty Keown  
ATC Associates\Nathan Murray  
BGR Engineering\Lance Gross  
Black & Veatch\Dana Kreeger  
Bob's Heating & Air\Robert Brown  
Buffington Brothers\David Pigg  
Burge Drilling\David Fortner  
Clayton Farm Services\Donald Clayton  
Cossey\James Cossey  
Dales Hardware\Dale Alexander  
Davis Environmental Drilling\Bobby Thompson

Deffenbaugh Environmental\John Organ  
Deka Geotechnical\Charles Enochs  
East Central Water Treatment\ Steven Mudd  
East Perry Building Supply\Kenton Roth  
Ecology & Environment\Randy Schademann  
ECS\Joseph Costanza  
Environmental Geoscience & Engineering\ Rick Horner  
Evans Excavating\Greg Evans  
Goins Pump Service\Juanita Goins  
Handex Environmental\Scott McKittrick, Brant Englund  
Herst & Associates\Melissa McGuire  
Integrity Well & Pump\Marty Keown  
IT Corporation\Martha Kopper  
JAAR Services\Joe Dunn  
J & J Co\Joseph Schmitt  
MO Dept of Natural Resources\Kurt Hollman  
Mudd's Drilling Service\Paul Roberts  
Pense Brothers\Richard Brewington  
Stone & Webster\John McLaughlin  
Versar\James Jaros  
W W Well Drilling\David Ward  
Wellington Environmental\Evelyn Cox  
Yes Outsource\Robert Jones  
Zane Eaton\Zane Eaton ♀



**MISSOURI DEPARTMENT OF NATURAL RESOURCES**

Geological Survey and Resource Assessment Division  
P.O. Box 250, Rolla, MO 65402-0250  
(573) 368-2100

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A date will be announced soon.***



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